

Patent Claims

1. Method for removing coarse materials from a pulper, comprising a coarse dirt collector being pivotable into and out of the pulper vessel (1) from above, characterized in that the inward and outward pivoting movement of the coarse dirt collector is carried out by a rotational movement about an axis of rotation (A) positioned at an angle to the plane that is vertical to the axis of the pulper vessel (2).
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2. Method according to claim 1, characterized in that the angle of the axis of rotation (A) is between 20° and 40°.
- 15 3. Method according to one of claims 1 or 2, characterized in that the rotational movement extends between 90° and 270°, preferably between 150° and 200°.
- 20 4. Method according to one of claims 1 to 3, characterized in that the unloading of the coarse materials is mechanically supported.
- 25 5. Method according to claim 4, characterized in that said support takes place in that the coarse dirt collector is moved against a catch.
- 30 6. Method according to one of claims 4 or 5, characterized in that said support takes place by a jerky movement of the coarse dirt collector in a backward direction.
7. Method according to one of claims 1 to 6, characterized in that the motions are carried out at constant or variable speeds.

8. Method according to claim 1, characterized in that the motions are carried out in a way that the coarse dirt collector is aligned suitable for collection in an inwardly pivoted position and is aligned suitable for unloading in an outwardly pivoted position.

9. Method according to claim 1, characterized in that the moving device only carries out a rotation about the axis of rotation (A).

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10. Method according to claim 1, characterized in that the coarse dirt is unloaded into a collecting funnel in the unloading position.

15 11. Coarse dirt collector for removing coarse materials from a pulper, which is pivotable into and out of the pulper vessel (1) from above, characterized by a moving device being constructed in a way that the inward and outward pivoting movement of the coarse dirt collector is carried out by a rotational movement about an axis of rotation (A) positioned at an angle to the plane that is vertical to the axis of the pulper vessel (2).

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25 12. Coarse dirt collector according to claim 11, characterized in that it is suspended on the pulper in a rotatable manner.

30 13. Coarse dirt collector according to claim 11, characterized in that it comprises a support construction being independent of the pulper, on which it is suspended in a rotatable manner.

14. Coarse dirt collector according to one of claims 11 to 13, characterized in that it comprises a support arm and a collecting basket attachable thereto.
- 5 15. Coarse dirt collector according to claim 14, characterized in that the collecting basket comprises a frame, in which a grid consisting of grid-shaped or parallel rods being attachable in a variable or fixed manner is located.
- 10 16. Coarse dirt collector according to claim 15, characterized in that tines are provided on the rods of the frame.
- 15 17. Coarse dirt collector according to claim 16, characterized in that the tines are positioned vertical to the axis of the pulper vessel (2) or slightly upwardly inclined thereto in an immersed position.
- 20 18. Coarse dirt collector according to one of claims 16 or 17, characterized in that the tines are fastened on the rods in a fixed manner.
- 25 19. Coarse dirt collector according to one of claims 16 or 17, characterized in that the tines are fastened on the rods in a detachable manner, preferably clamped or screwed.
20. Coarse dirt collector according to one of claims 11 to 19, characterized in that the pulper comprises a lid with an opening for unloading the coarse dirt.
- 30 21. Coarse dirt collector according to claim 20, characterized in that a hood for the coarse dirt collector is joined to the lid of the pulper.

22. Coarse dirt collector according to one of claims 11 to 21, characterized by a collecting funnel into which the coarse dirt can be unloaded.

5 23. Coarse dirt collector according to one of claims 20 to 22, characterized in that the total lid of the pulper can be opened for unloading the coarse materials.

10 24. Coarse dirt collector according to one of claims 14 to 23, characterized in that the support arm of the coarse dirt collector is bent and/or angled in a way that the unloading opening provided in the pulper is as small as possible.

15 25. Coarse dirt collector according to one of the preceding claims 15 to 24, characterized in that the frame of the coarse dirt collector is fastened on the support arm in a way that it is aligned suitable for collection in an inwardly pivoted position and that it is aligned suitable for unloading in an outwardly pivoted position.

20 26. Coarse dirt collector according to one of the preceding claims 15 to 24, characterized in that the frame of the coarse dirt collector is fastened on the support arm in a way that it can be passed along the wall of the pulper vessel and the rotor during the rotational movement so that the unloading opening in the lid of the pulper is as small as possible and that it essentially fills out the surface between the rotor and the wall of the pulper vessel in the collecting position.

25 30 27. Coarse dirt collector according to one of the preceding claims 15 to 26, characterized in that the frame of the coarse dirt collector is inclined slightly to the vertical

line and likewise slightly to the radial line to the axis of the pulper in the collecting position.

28. Coarse dirt collector according to one of the preceding
5 claims 11 to 27, characterized in that the moving device is provided with an electrical, pneumatic or hydraulic drive preferably being combined with a spur gear or a toothed rack so as to bring the coarse dirt collector in a linear rotational movement.

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29. Coarse dirt collector according to one of the preceding claims, characterized in that the motions of the moving device are wholly or partly automated.

15 30. Coarse dirt collector according to one of the claims 11 to 29, characterized in that the system consisting of pulper and lid thereof, hood for the coarse dirt collector and collecting funnel can be sealed in an odor-resistant manner and can preferably be connected to an exhaust air system.

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